

Applicant : Hisashi Ohtani
Serial No. : 09/389,393
Filed : September 3, 1999
Page : 14 of 15

Attorney's Docket No.: 07977-204002 / US3480D1

REMARKS

Claims 1-3 and 44-84 are pending in this application with claims 1 and 44-48 being independent. Claims 1, 44-48 and 67-78 are amended herein. Claims 4-43 have been cancelled.

Regarding preliminary matters, amended Figs. 1A-1E, 2A-2D, 3A-3D and 4 with all reference numerals corrected to correspond to the specification as filed. No new matter is added by these amendments.

Claims 1-3 and 44-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5767530 to Ha (Ha) in view of JP 05-315615 to Ota (Ota), and, alternately, further in view of U.S. 5,308,998 to Yamazaki et al. (Yamazaki). Additionally, claims 44, 46, 48, and 73-78 (and the specification) are objected to.

Regarding the objection to claims 44, 46, and 48, Applicant respectfully submits that the amendments made to these claims by virtue of this paper serve to obviate the present objections. Accordingly, Applicant requests that these objections be withdrawn.

Regarding the objection to claims 73-78 (and the specification), the Office Action states in paragraph 1 that "... various references teach that Al has a higher oxidation rate than does Ta ..." In response, Applicant notes that an oxide thickness/growth rate depends on the specific setting/circumstance in which the process takes place (see, for example, page 7, lines 8-12). For example, in the anodization process described at page 12, lines 7-16, the relevant oxide thicknesses (oxidation rates) are inversely proportional to the resistivities of the materials (i.e., AlOx and TaOx). As described therein, a resistivity of TaOx may be, for example, one-third of the resistivity of AlOx, and, as a result, the resulting TaOx may be (is) thicker than the resulting AlOx. Accordingly, Applicant respectfully submits that the objections to claims 73-78 and to the specification are improper, and should be withdrawn.

Regarding the rejection of claims 1-3 and 44-84 under 35 U.S.C. 103(a) as being unpatentable over Ha in view of Ota, and, alternately, further in view of Yamazaki, Applicant respectfully submits that none of these references, whether taken alone or in combination, disclose or properly suggest all of the features recited in at least independent claims 1 and 44-48, as amended.

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Page : 15 of 15

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In particular, independent claim 1 is directed to a "bottom-gate type" thin film transistor, one feature of which includes a gate electrode (e.g., the first and second conductive layer, as claimed) being formed below the channel-forming region. Support for the added features may be found at, for example, page 14, lines 5-14. New Fig. 5 is added to illustrate claim features not previously shown in the drawings. New Fig. 5 merely illustrates that which is described in the specification and therefore does not add new matter. The specification has been amended to reflect the addition of new Fig. 5.

Since none of Ha, Ota, and/or Yamazaki disclose or fairly suggest all of the features recited in amended independent claim 1, claim 1 is believed to be allowable. As a result, dependent claims 2, 3, 49, 53, 61, 67, 73, and 79 also are believed to be allowable for at least the same reasons.


Amended independent claims 44-48 recite at least the same or similar features, and, along with dependent claims 50-52, 54-60, 62-66, 68-72, 74-78, and 80-84, are therefore believed to be allowable for at least the same reasons.

Based on the above, all of claims 1-3 and 44-84 are believed to be in condition for allowance, and such action is hereby requested in the Examiner's next official communication.

Please charge the Three-Month Extension Fee of \$950.00 and any additional charges necessary to deposit account 06-1050 under our reference number 07977-204002.

Respectfully submitted,

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